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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,174	11/30/2000	Michael A. Montgomery	40.0023 C1	5606

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SCHLUMBERGER AUSTIN TECHNOLOGY CENTER
ATTN: PEHR B. JANSSON, INTELLECTUAL PROP LAW DEPT.
8311 NORTH FM 620
AUSTIN, TX 78726

EXAMINER

PATEL, NIKETA I

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,174

Applicant(s)

MONTGOMERY ET AL.

Examiner

Niketa I. Patel

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 32-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 30 November 2000 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. Please update the status of the listed co-pending U.S. Patent application with U.S. serial number or U.S. Patent number.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The disclosure is objected to because of the following informalities: the disclosure lacks adequate description of the term "*a special packet*".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 33 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Line 1 of claim 33 recites a term "*a special packet*", however the specification fails to give adequate description of this term.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 32 recites the limitation "*the packet*" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 37-40 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Shona U.S.

Patent Number 5,790,885 (hereinafter referred to as "*Shona*").

6. Referring to claim 37, *Shona* teaches a smart card configured to communicate in an asynchronous manner to a smart card terminal (see figure 3 – elements 70, 40; column 1 – lines 16-27; column 2 – lines 64-67; column 3 – lines 1-14), comprising: means operable to request terminal resources (see figure 3 – elements 70, 40, 46, 50, 42; column 2 – lines 8-30).

Art Unit: 2182

7. Referring to claim 38, , *Shona* teaches means operable to simulate asynchronous communication with the smart card terminal (see figure 3 – elements 70, 40; column 1 – lines 16-27; column 2 – lines 64-67; column 3 – lines 1-14).
8. Referring to claims 39 and 40, *Shona* teaches that the terminal resource is access to network services (see figure 3 – elements 60, 40, 70).
9. Referring to claim 42, *Shona* teaches a computer system comprising: a terminal for communicating with smart cards (see figure 3 – elements 70, 40); the terminal having a means for simulating asynchronous communication with the smart card (see figure 3 – elements 70, 40; column 1 – lines 16-27; column 2 – lines 64-67; column 3 – lines 1-14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2182

10. As far the examiner can interpret the claims in light of the first and second paragraph 112 rejections, supra, the claims 32-36, 41 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shona U.S. Patent Number 5,790,885 (hereinafter refereed to as "*Shona*") as applied to claims 37 and 42 above, and further in view of Anderl et al. U.S. Patent Number: 6,297,724 (hereinafter refereed to as "*Anderl*").

11. Referring to claims 32, 41, 43, 44, *Shona* discloses a method of operating a smart card (see figure 3 – element 70) and smart card terminal (see figure 3 – element 40) to simulate asynchronous communication between the smart card and smart card terminal such that either the smart card or the smart card terminal may operate as master and the other operating as slave wherein the smart card and smart card terminal communicate in a half-duplex protocol, comprising (see column 1 – lines 10-67; column 2 – lines 64-67; column 3 – lines 1-14): sending a first message from the smart card terminal to the smart card, wherein if the smart card terminal has no data to send the smart card, (see column 4 – lines 1-41; column 5 – lines 57-67; column 6 – lines 1-27; column 3 – lines 15-51); receiving the first message at the smart card (see column 4 – lines 1-41; column 5 – lines 57-67; column 6 – lines 1-27); upon receipt of the first message, if the smart card has data to send, sending a second message from the smart card to the terminal (see column 4 – lines 1-41; column 5 – lines 57-67; column 6 – lines 1-27; column 3 – lines 15-51); upon receipt of the second message from the smart card, sending a third message from the terminal to the smart card as an indication from the terminal to the smart card to commence sending the data (see column 6 – lines 44-58; column 5 – lines 57-67; column 6 – lines 1-27); and sending a message containing the data from the smart card to the terminal (see column 6 – lines 44-58; column 5 – lines 57-67; column 6 – lines 1-27; column 3 – lines 15-51). *Shona* fails

Art Unit: 2182

to explicitly set forth the limitation of a polling packet and sending a second message containing a length of data indication. However, *Anderl* teaches a use of polling packet and sending a message containing a length of data indication (see column 10 – lines 10-37, 46-67; column 11 – lines 1-9; column 6 – lines 24-32), resulting in half-duplex asynchronous data transfer.

One of ordinary skill in the art at the time of applicant's invention would have clearly recognized that it is quite advantageous for the method of *Shona* to be implemented using a polling packet to gather the status/control information of the smart card and a message containing a length of data indication to check whether the transmission/receive buffer in the smart card reader/writer has enough memory available to store incoming data. It is for this reason that one of ordinary skill in the art would have been motivated to modify *Shona's* data transfer method by including a polling packet and a message containing a length of data indication, in order to provide faster and more reliable half-duplex asynchronous data transfer.

12. Referring to claim 33, the method of *Shona* as modified by the method of *Anderl* as applied to claim 32 above teaches that the limitation wherein the indication from the terminal is a special packet having a length, which is equal to the length indicated by the smart card. However *Shona* teaches to send and receive data from a smart card (see column 10 – lines 10-37, 46-67).

13. Referring to claim 34, the method of *Shona* as modified by the method of *Anderl* as applied to claim 32 above teaches to mark each message with a unique sequence number correlating a sequence of message (see column 10 – lines 10-37).

14. Referring to claim 35, the method of *Shona* as modified by the method of *Anderl* as applied to claim 32 above teaches to comprise the step of deferring response to a message while

Art Unit: 2182

sending other messages from the smart card to the terminal (see column 10 – lines 10-37, 46-67; column 11 – lines 1-9).

15. Referring to claim 36, the method of *Shona* as modified by the method of *Anderl* as applied to claim 32 above teaches when a response to a deferred message is ready, sending a response to the deferred message by marking the message with the sequence number of the deferred message (see column 10 – lines 10-37, 46-67; column 11 – lines 1-9).

16. Referring to claim 45, the method of *Shona* as modified by the method of *Anderl* as applied to claim 44 above teaches that the terminal further comprises means for transmitting to the smart card an indication to commence transmitting data having the length indicated by the smart card in the data length indication (see column 10 – lines 10-37, 46-67; column 11 – lines 1-9).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following documents have been made record of to further show the state of the art as it pertains to smart cards and asynchronous communication.

Iijima U.S. Patent Number: 4,939,353

Niimura et al. U.S. Patent Number: 5,101,410

Iijima U.S. Patent Number: 5,369,760

Brogan et al. U.S. Patent Number: 6,012,634

Harris et al. U.S. Patent Number: 4,631,666

Freeburg et al. U.S. Patent Number: 5,987,018

Farley et al. U.S. Patent Number: 4,796,025

Art Unit: 2182

Kataoka et al. U.S. Patent Number: 6,463,095


Ohashi et al. U.S. Patent Number: 5,761,309

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niketa I. Patel whose telephone number is (703) 305 4893. The examiner can normally be reached on M-F 9:00 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (703) 308 3301. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746 7239 for regular communications and (703) 746 7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305 3900.

NP
February 28, 2003



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100